

APR 01 2004

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

Substitute for form 1449/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 3

Application Number

09/512,954

Filing Date

February 25, 2000

First Named Inventor

Pablo Acosta-Serafini

Art Unit

2612

Examiner Name

Lin Ye

RECEIVED
APR 08 2004

Technology Center 2600

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
ly	A	US- 4,797,562	01-10-1989	Dietrich	
ly	B	US- 5,021,888	06-04-1991	Kondou et al.	
ly	C	US- 5,097,305	03-17-1992	Mead et al.	
ly	D	US- 5,157,502	10-20-1992	Nakajima et al.	
ly	E	US- 5,233,428	08-03-1993	Alford et al.	
ly	F	US- 5,579,049	11-26-1996	Shimaya et al.	
ly	G	US- 4,706,123	11-10-1987	Chautemps	
ly	H	US- 5,117,292	05-26-1992	Matsunaga	
ly	I	US- 5,659,359	08-19-1997	Mochizuki et al.	
ly	J	US- 5,665,959	09-09-1997	Fossum et al.	
ly	K	US- 4,984,002	01-08-1991	Kokubo	
ly	L	US- 6,606,121	08-12-2003	Bohm et al.	
	M	US-			
	N	US-			
	O	US-			
	P	US-			
	Q	US-			
	R	US-			
	S	US-			

FOREIGN PATENT DOCUMENTS

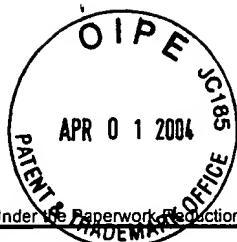
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
ly	T	WO 97/17800	05-15-1999	California Inst. of Technology		
ly	U	WO 98/14002	04-02-1998	Bohm, Marcus		✓
	V					
	W					
	X					
	Y					

Examiner Signature		Date Considered	6/8/04
--------------------	---	-----------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	09/512,954
				Filing Date	February 25, 2000
				First Named Inventor	Pablo Acosto-Serafini
				Art Unit	2612
				Examiner Name	Lin Ye
Sheet	2	of	3	Attorney Docket Number	Technology Center 2600 MIT8072

RECEIVED

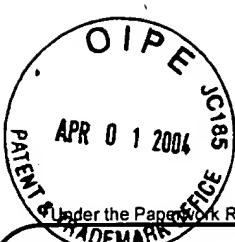
APR 08 2004

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
WY	AA	WILSON et al., "Versatile Multi Mode 320x240/256x256 Hybrid InSb Infrared Focal Plane Array With Selectable Snapshot or Rolling Integration, SPIE Vol. 1762, "Infrared Technology XVIII," pp.401-405, 1992			
WY	BB	VANGORDEN et al., "SICam - A PC Compatible Digital Instrumentation Camera Incorporating A Large Pixel 512x512 Format Charge Injection Device (CID)," SPIE Vol. 1901, "Cameras, Scanners, and Image Acquisition Systems," pp. 83-98, 1993.			
WY	CC	VELLACOTT, "CMOS in camera," IEE Review, pp. 111-114, May 1994.			
WY	DD	WENTINK et al., "Charge injection device (CID) technology - a solution for photon and particle imaging applications," Nuclear Instruments and Methods in Physics Research A, Vol. 347, pp. 522-528, 1994.			
WY	EE	CHEN et al., "Adaptive Sensitivity CCD Imager," SPIE Vol. 2415: "Charge-Coupled Devices and Solid State Optical Sensors V," pp. 303-309, February 1995.			
WY	FF	SEITZ, "From Electronic Photography to Seeing Chips - The Future of Image Sensing" IEEE AT'95: "Advanced Technologies Intelligent Vision," pp. 3-9, Oct. 1995.			
WY	GG	COLCHESTER et al., "Towards the Limits of Frame Transfer CCDs in Beam Instrumentation," AIP Conference Proceedings: "Beam Instrumentation," Seventh Workshop, pp. 215-222, May 1996.			
WY	HH	ZARNOWSKI et al., "Scientific CMOS CID Imagers," SPIE Vol. 2654, pp. 29-37, 1996.			
WY	II	CHEN et al., "An Adaptive Sensitivity TDI CCD Sensor," SPIE Vol. 2950, pp. 45-48, 1996.			
WY	JJ	SHIMAMOTO et al., "A dynamic range expansion method for a CMD imager," SPIE Vol. 3019, pp. 249-255, 1997.			

Examiner Signature		Date Considered	6/8/04
--------------------	--	-----------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

Substitute for form 1449/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

3

of

3

Application Number	09/512,954
Filing Date	February 25, 2000
First Named Inventor	Pablo Acosto-Serafini
Art Unit	2612
Examiner Name	Lin Ye
Attorney Docket Number	MIT8072

RECEIVED
APR 08 2004
Technology Center 2600

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
Y	KK	YADID-PECHT et al., "Wide Intrascene Dynamic Range CMOS APS Using Dual Sampling," IEEE Transactions on Electron Devices, Vol. 44, No. 10, pp. 1721-1723, Oct. 1997.	
ly	LL	YADID-PECHT et al., "CMOS Active Pixel Sensor Star Tracker with Regional Electronic Shutter," IEEE Journal of Solid-State Circuits, Vol. 32, No. 2, pp. 285-288, Feb. 1997.	
ly	MM	MCGRATH et al., "Current-Mediated, Current-Reset 768x512 Active Pixel Sensor Array," 1997 IEEE Int. Solid-State Circuits Conference, Session 11, Paper Fa 11.2, pp. 182-183, 1997.	
ly	NN	FISCHER et al., "A counting pixel readout chip for imaging applications," Nuclear Instruments and Methods in Physics Research A, Vol. 405, pp. 53-59, 1998.	
ly	OO	HOEKSTRA et al., "A memory read-out approach for a 0.5 micron CMOS image sensor," SPIE Vol. 3301, pp. 151-157, 1998.	
ly	PP	YADID-PECHT et al., "Wide-dynamic-range sensors," Optical Engineering, Vol. 38, No. 10, pp. 1650-1660, Oct. 1999.	
ly	QQ	YANG et al., "A 640x512 CMOS Image Sensor with Ultrawide Dynamic Range Floating-Point Pixel-Level ADC," IEEE Journal of Solid-State Circuits, Vol. 34, No. 12, pp. 1821-1834, Dec. 1999.	
l	RR		
	SS		
	TT		

Examiner Signature		Date Considered	6/8/04
--------------------	--	-----------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.